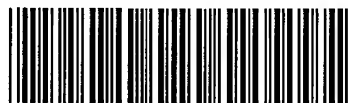


Search Notes



Application No.

10/645,429

Examiner

EBENEZER SACKY

Applicant(s)

HEPFER ET AL.

Art Unit

1626



SEARCHED

Class	Subclass	Date	Examiner
549	295, 326	11/27/2004	ES
549	233, 508	11/27/2004	ES
568	864,884		

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner

SEARCH NOTES (INCLUDING SEARCH STRATEGY)

	DATE	EXMR
Inventors name searched CAS ONLINE FOR A PROCESS FOR PREPARING THE PRODUCTS:	11/27/2004	ES
$\begin{array}{c} \text{H} \quad \text{H} \\ \diagdown \quad \diagup \\ \text{C} = \text{C} \\ \diagup \quad \diagdown \\ \text{HO}_2\text{C} \quad \text{CO}_2\text{H} \end{array}$ <p>malic acid</p> <p> $\xrightarrow[\text{catalyst}]{\text{H}^+}$ </p>		
$\text{HO}_2\text{CCH}_2\text{CH}_2\text{CO}_2\text{H}$ <p>succinic acid</p>		
$\xrightarrow[\text{catalyst}]{\text{H}^+}$ <p>  </p> <p>gamma-butyrolactone</p>		
$-2\text{H}_2 / +2\text{H}_2$ <p>1,4-butanediol $\text{HOCH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$</p> <p> $\xrightarrow{-\text{H}_2\text{O}}$ </p>		
<p>  </p> <p>tetrahydrofuran</p>		